MOBILIZATION FUEL REQUIREMENTS

HEARING

BEFORE THE

SUBCOMMITTEE ON PREPAREDNESS

OF THE

COMMITTEE ON ARMED SERVICES

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MOBILIZATION FUEL REQUIREMENTS

WEDNESDAY, DECEMBER 16, 1981

U.S. SENATE,
SUBCOMMITTEE ON PREPAREDNESS,
COMMITTEE ON ARMED SERVICES,
Washington, D.C.

The subcommittee met in executive session at 10:30 a.m., pursuant to notice, in room 212, Russell Senate Office Building, Senator Gordon J. Humphrey, chairman, presiding.

Present: Senators Humphrey and Levin.

Staff present: Michael B. Donley, David S. Lyles, James C. Smith, Kathleen Troia, professional staff members; and Marie Fabrizio Dickinson, staff assistant.

Also, present: George Kohl, assistant to Senator Humphrey and Jon Etherton, assistant to Senator Jepsen.

OPENING STATEMENT BY SENATOR GORDON J. HUMPHREY, CHAIRMAN

Senator HUMPHREY. Good morning.

The purpose of the hearing this morning is to examine the overall Department of Defense fuel situation to include mobilization planning. We are concerned with the role that the naval petroleum reserves will play in the overall defense fuel situation and this hearing is to provide background to address that question.

This is an executive session because I expect to get into classified information as we discuss mobilization planning.

We are pleased to welcome Dr. Webster and Admiral Ryan back this morning. Admiral Watson from the Joint Chiefs of Staff has joined them and I look forward to an informative exchange this morning.

Dr. Webster, will you proceed, please.

STATEMENT BY RICHARD D. WEBSTER, DEPUTY ASSISTANT SECRETARY OF DEFENSE, LOGISTICS AND MATERIEL MANAGEMENT (MR&L), ACCOMPANIED BY REAR ADM. THOMAS C. WATSON, JR., DEPUTY DIRECTOR FOR PLANNING AND RESOURCES, LOGISTICS DIRECTORATE, ORGANIZATION OF THE JOINT CHIEFS OF STAFF; REAR ADM. WILLIAM J. RYAN, COMMANDER, DEFENSE FUEL SUPPLY CENTER; WILLIAM J. SHARKEY, DIRECTOR FOR ENERGY POLICY (OASD/MUA&L); AND LT. COL. JAMES C. CRUMP, JR., USAF, POLICY ACTION OFFICER, LOGISTICS RESOURCES DIVISION, OJCS

Mr. WEBSTER. Thank you, Mr. Chairman.

We thank you for this opportunity to present additional information to the subcommittee regarding Department of Defense petroleum fuel

requirements in peace and war, and the significance of the naval petroleum reserves to those requirements.

I am Dr. Richard Webster, Deputy Assistant Secretary of Defense for Logistics and Materiel Management. Accompanying me today are Rear Adm. Thomas Watson, Jr., Deputy Director for Planning and Resources, Logistics Directorate (J-4), Organization of the Joint Chiefs of Staff; and Rear Adm. William J. Ryan, Commander, Defense Fuel Supply Center; and Mr. William J. Sharkey, Director for Energy Policy in my organization.

When I appeared before you in open session on November 12, 1981,[1] I spoke of the general magnitude of the DOD petroleum fuel appetite, the four-point supply assurance program we have developed to help satisfy that appetite and how that supply assurance program is tied to our support of the President's decision on continued production of the NPR's.

Today my colleagues and I are here to respond to the subcommittee's request for more detailed information on our petroleum requirements, the nature of our war reserves, the role of the NPR's in the overall equation, and the JCS views on continued NPR production.

The military departments maintain peacetime stocks and war reserve stocks at operating locations worldwide. They compute peacetime operating stockage objectives for peacetime operations on their own basis as well as wartime petroleum consumption rates for use in establishing prepositioned war reserve requirements.

The service calculations are based upon OSD and JCS guidance plus fuel consumption factors for their weapons systems.

The Defense Fuel Supply Center is responsible for procurement, wholesale storage and distribution of bulk fuels.

DOD is the largest single petroleum consumer in the United States. Our current daily petroleum consumption is approximately 480,000 barrels per day.

To sustain wartime military operations in a worldwide conflict would require approximately [deleted] barrels per day.

We have with us today information regarding anticipated requirements in wartime scenarios for NATO and Southwest Asia which we will discuss later.

We know accurately that the fuel consumption factors for individual weapon systems and the tempo at which we intend to operate these systems in a conflict. We are less comfortable, however, with our estimates of fuel consumption on the part of the defense industry. Our best estimate is that the defense industry consumes about the same amount as the military. Thus, [deleted] barrels per day would be the maximum defense industry requirement.

DOD is not the appropriate agency to provide the estimate of the residual national economy petroleum requirements in a large-scale military conflict.

The Defense Fuel Supply Center receives two categories of bulk petroleum requirements from the military departments. The first is prepositioned war reserve stocks, PWRS. About [deleted] percent or [deleted] barrels of the total of [deleted] barrels of the DOD re-

[1] "Naval Petroleum Reserves", November 12, 1981, hearing, U.S. Senate, Armed Services Committee, Washington, D.C.

quirement for prepositioned war reserve stocks is held by the military services at the location where the requirement exists.

The Defense Fuel Supply Center has sufficient funding and storage to hold another [deleted] percent of PWRS or [deleted] barrels in bulk petroleum terminals.

Funding for the remaining [deleted] percent or [deleted] barrels of the war reserve requirement is planned to eliminate this deficit by the end of fiscal year [deleted].

The requirements for war reserve stocks change continually as new weapon systems are introduced into the inventory, as new requirements develop, for example, Southwest Asia and as contingency plans and computational methods are refined.

For example, in 1979 our total war reserve requirement was [deleted] barrels as compared with the current [deleted] barrels requirement.

The second category of requirements that the Defense Fuel Supply Center receives from the military services is for peacetime activity. In addition to the [deleted] barrels of our war reserve stock, DFSC holds about 26 million barrels of peacetime operating stock or POS. The peacetime stock level is designed to cover normal peacetime operations and preclude the need to use the prepositioned war reserve stock in any theater.

In addition to the defense peacetime stocks, the military services stock about 11 million barrels of peacetime operating stock on their bases.

In summary, the total DOD inventory status as of the last day of October 1981, was [deleted] barrels. Our inventory position has shown a marked improvement since early fiscal year 1980. We have added 14 million barrels of storage and increased wholesale inventories [deleted] barrels from [deleted] million barrels to [deleted] barrels.

The Defense Fuel Supply Center would buy the fuel to satisfy requirements in the following manner:

First, procurement of fuels in peacetime. The procurement of DOD fuel requirements during peacetime presents no unusual problems. Products are procured from both foreign and domestic sources, depending primarily on where the fuel is to be used.

Procurement under conditions of peacetime fuel shortage. Procurement of Department of Defense fuel needs when there is a worldwide shortage of petroleum products presents unique problems. In the 1973–74 area the Department used initially the Defense Production Act to acquire its fuel. In 1979–80 shortfalls were reversed only after personal Secretary of Defense intervention with oil companies.

Procurement under wartime conditions. There is a range of procurement methods available. Products readily available would be bought through normal procurement procedures. Those more difficult to acquire would be bought using special exceptions under defense acquisition regulations. We would invoke the DPA if necessary. As a last resort the extraordinary emergency authorities under Public Law 85–804 permit the President to take action deemed necessary to meet defense needs. Finally, we might also secure additional product through the direct refining of Government-owned crude as that avail-

able from the strategic petroleum reserve or royalty crude from OCS leases.

The NPR enhances our ability to acquire fuel. The major constraint our suppliers face during fuel shortages is the lack of secure crude oil supplies.

The U.S. Government through production of the NPR's and through royalty entitlements controls a lot of crude oil. Our intent is to have this oil transferred to DOD to enhance our leverage to obtain fuel.

This long-term program will insulate us in part from the vagaries in the marketplace. Because our residual marketplace demands will be small, our ability to buy what we need without regulatory intervention will be enhanced.

The Defense Fuel Supply Center has already awarded contracts for the exchange of the first segment of NPR crude and has solicited bids on the remaining NPR petroleum which will become available next April.

In addition, we are negotiating with the Department of the Interior over access to Outer Continental Shelf royal oil.

We are counting on continued production of the NPR's to enable DOD to establish solidly our program to secure domestic, crude oil supplies. This strategy will make an important contribution to military readiness in the years ahead.

The techniques to obtain military petroleum products using Government-owned crude oil are new and experimental. We are in a learning process and the novelty of this approach makes it likely that we will have to go through several solicitations before we understand how best to do it and before we evaluate the economic merits of the process. Continued NPR production is essential to this learning process.

In conclusion, Mr. Chairman, the DOD has an aggressive and effective program to identify and satisfy petroleum requirements for peacetime and war. Continued production of the NPR is an important element of our plans.

Mr. Chairman, I would now like to introduce Lt. Col. Jim Crump of the Organization of the Joint Chiefs of Staff to discuss specific wartime scenarios for NATO and Southwest Asia. He will be prepared to answer any questions you have after that presentation.

Colonel.

Admiral WATSON. If I may, sir, a few comments before Lieutenant Colonel Crump starts.

I think it might be worthwhile, sir, to talk through just a bit how we estimate the requirements for fuel around the world.

As you know, the armed services, at least in the overseas organization, are organized into Theater Commanders and Chiefs such as USCINCEUR, USCINCSO, CINCLANT and CINCPAC.

In the course of developing plans, the Joint Chiefs of Staff will tell the CINC's to prepare an operational plan against a certain contingency. For instance, USCINCEUR has a plan in which we reinforce Europe in the case of a [deleted] through the [deleted].

[Deleted.]

In the course of developing the requirements, and that is our job, to develop the requirements for fuel around the world, we have taken some basic known quantities such as [deleted].

[Slide deleted.]

Jim, will you put that first slide on, please.

As an example, this shows the days of supply objectives for the different theaters and then within the theater for the different countries.

For the European Command in the United Kingdom we want [deleted] days of supply. I will show you in a minute how we arrived at that number.

The Mediterranean, [deleted] days.

For the Pacific Command, for Hawaii we would want [deleted] days.

All others, which would include Korea, would be [deleted] days of supply, and that makes [deleted] we would have there.

To give you some idea to let you know that this isn't all magic and that we do have some basic assumptions that we use in arriving at these requirement numbers, we [deleted].

Once we determine that we want to move some fuel, we give from the time we issue the order until it is ready to move [deleted] days which we found is realistic [deleted.]

[Deleted.]

If we assume that we would have to [deleted]. [Deleted] we plan on a [deleted] closure for this [deleted.] So we know that it does take some time to [deleted.]

[Deleted] sailing time to the United Kingdom. To Central Europe [deleted] days.

Now I hope you don't carry away from what I am describing here—it is methodical, yes, but it is not an absolute sort of a thing that we are doing. Since we are not going to [deleted]. What really happens in the real world may not be anything like this, but we have got to have some planning factors.

The rest of it just shows you how we arrived at the numbers and it is a methodical process.

Now this gives more definitive numbers just for your information. The extreme lefthand column shows by the different theaters what the pre-positioned war reserve stockage levels are, the requirements. Some [deleted] million barrels of fuel should be placed in those different theaters.

Next to it shows as of October 1 of this year what the stockage level was. Incidentally, it is about [deleted] barrels higher than that today.

Then the last column over there will show that, as of October 1, we had a [deleted] million-barrel shortfall. Today, it is about [deleted] million barrels. We are [deleted].

The days of supply: That just averages out in a weighted sort of way. It shows that against all the out plans that we have got about [deleted] days of supply of petroleum products in the different theaters.

As a matter of interest, we are still conducting studies [deleted] for any deployment in Southwest Asia.

Senator HUMPHREY. You are still in what process?

Admiral WATSON. We don't have [deleted] and whatnot completely ironed out. We are working on that problem right at the moment.

For your information, this is our best estimate of fuel requirements to [deleted] today. That is a [deleted] force size. [Deleted] a [deleted] force size will be shown to you momentarily.

[Slide deleted.]

This shows you from C plus 1, which is commence date plus 1, out to C plus 30; in other words, in the first month, we feel we need to have [deleted] barrels of fuel in theater.

Just for your information, today using the near-term pre-positioning ships we have about [deleted] barrels [deleted] right now [deleted].

We are currently working with a number of nations to possibly provide our in-theater fuel requirements through host station support.

For force it would go up higher, about [deleted] barrels.

You will notice as the days go on, the [deleted]. Then we start the war fighting and so on. Now this is our assumption of how we think this thing would go.

Senator HUMPHREY. This is a worst-class scenario?

Admiral WATSON. No, sir. This is our best guess at how we think the scheme of maneuver would go. [Deleted].

Senator HUMPHREY. Is it likely that there would be any commitment at a level less than this?

Admiral WATSON. Yes, sir, certainly that is likely in any one of the cases. I guess to answer your question, worst case, yes, sir. This is against a [deleted] where we have made [deleted].

Senator HUMPHREY. Under that scenario, it would require, according to the previous slide, about [deleted] million barrels a day and we have the capability to provide about [deleted]; is that correct?

Admiral WATSON. No, sir. About [deleted] barrels have to be [deleted] to support the first [deleted] days of our deployment.

Senator HUMPHREY. In storage.

Admiral WATSON. [Deleted].

Senator HUMPHREY. That is what I meant to say, but we have how much?

Admiral WATSON. Well, right now in the theater that we can absolutely assure ourselves of having is the [deleted] in which we have about [deleted] barrels and [deleted]. Now we are working to try to get some commitments from the [deleted] and others to provide fuel for us and to allow us to build some pre-positioned stockage levels over there.

Senator HUMPHREY. If we had to mobilize sometime in the next month or so, where would we make up that shortfall?

Admiral WATSON. Well, one of the first things we would do of course is to go to the [deleted] because, you know, [deleted]. Admiral Ryan might be in a little bit better position to answer.

Senator HUMPHREY. I don't want to hold up your presentation. I will come back to this. Why don't you continue.

Admiral WATSON. I believe that is about all I had, sir, unless you have some questions, which I am sure you do at this point.

Senator HUMPHREY. Let's talk about that further then. You have required [deleted] and you have how much over there, about [deleted]?

Admiral WATSON. No, sir, about [deleted] barrels right now.

Senator HUMPHREY. About [deleted]. So you are talking about a shortfall of almost [deleted] barrels in storage?

Admiral WATSON. Yes, sir. Senator, let me be sure you understand. We are [deleted].

Senator HUMPHREY. I understand. I am not criticizing. I am just concerned because, on the one hand, our diplomats are talking about using force, if necessary, to protect our interests in that part of the world and, on the other hand, it doesn't look as though, from this point of view anyway, that we are [deleted].

Admiral WATSON. Now you have got to remember these are pre-positioned stockages. If we were to deploy that force over there, I don't think there is any question that [deleted]. It is that we don't have that pre-positioned stockage level we would like to have.

Senator HUMPHREY. Why is there a requirement for pre-positioning then if it is not a problem to make it up quickly once you commit?

Admiral WATSON. Well, I didn't mean to say it is no big deal. It would be a big deal. I am saying we are not completely uncovered. [Deleted.]

Senator HUMPHREY. What plans do you have to bring that pre-positioning up to the required level, and by what date will we reach that?

Admiral WATSON. Well, sir, I can't answer that in any definitive terms because we are currently studying that problem. As you know, we haven't gotten very good response from [deleted] to pre-position in country. So we have started the diplomatic initiatives. At least we have gone to State and they have started the diplomatic initiatives to get commitments from countries in the area that [deleted].

Senator HUMPHREY. Are you talking about refined product?

Admiral WATSON. Yes, sir, that is all refined product.

Senator HUMPHREY. How much refined product do the [deleted] have in stock at any one time? They don't have a very large refining capacity at present, do they?

Admiral WATSON. No, sir, they don't, and I am not prepared to answer that in any great detail. I don't believe that they could meet all of our commitments or our requirements.

Senator HUMPHREY. My point is that if we plan in the interim to turn to [deleted] we might find there isn't much potential there right now for refined product readily available.

Yes, Admiral.

Admiral RYAN. I think that there are some other sources of refined product in the general area. I might mention a few, sir. Bahrain, we secure fuel from Bahrain; Kuwait, Singapore, some from the Philippines and of course from Guam. So there are refineries in the area and depending upon the situation, of course, we can obtain refined product from one or more of those sources.

Senator HUMPHREY. How much could be obtain on short order would you estimate from sources in that area?

Admiral RYAN. This of course would have to be an estimate. I would be very happy to provide more detailed information for the record, if you would like, sir.

. We have, for example, a contract with Caltex in Bahrain and it permits us to double in 30 days and then triple in 60 days. Our lift from them and the point where it reaches is about 300,000 a day.

Senator HUMPHREY. But we are talking about the first [deleted] days here so we are talking pretty much about whatever they might have in storage. Is there a large storage of refined fuels at these refineries?

Admiral RYAN. The only war reserve which could be counted on as such is the reserve mentioned by Admiral Watson, which is prepositioned [deleted]. However, in addition to the war reserve stock in the area we also have a certain amount of peacetime operating stock which is located in the area as well. We have some in Mombassa, we have some in Oman and we have some in Diego Garcia itself. However, we do not count that as inviolate, so to speak, because it is used for day-to-day operations. You may find when you actually need it that it is being consumed, but there are other sources of fuel over there.

I might also add we are looking at additional storage locations as well. Among them is Sri Lanka, for example. As soon as we have a more finite assessment of the total requirements for the area then we will be able to move into a more elaborate or larger program to start storing prepositioned war reserves in the Southwest Asia area.

Senator HUMPHREY. Let's get back to the original purpose of these hearings which was the matter of continued production for the naval oil reserves.

Dr. Webster, have you seen the article in the December 12 issue of Congressional Quarterly about House action on this question?

Mr. WEBSTER. I haven't personally seen it.

Senator HUMPHREY. As perhaps you know, the House Armed Services Committee voted 19 to 13 on December 9 to block President Reagan's plan to continue pumping oil from the naval petroleum reserve at Elk Hills.

Mr. WEBSTER. I am aware of that.

Senator HUMPHREY. Would you comment on the following quotation of Richard C. White, who is a Member of Congress from Texas:

There really is no need for Elk Hills production now, said Richard C. White, Texas, Chairman of the Armed Services Investigation Subcommittee who sponsored the disapproval of the resolution, but if we ever get into a national defense emergency there will be a need for it.

Mr. WEBSTER. Well, my comment would refer back to what I said in my statement, and that is that we in our fuel supply assurance program are going to gain a great benefit from the NPR drawdown and that we would get relatively easy access to the finished fuel product.

Now it is new, and, as I said, we are in a learning process, but I believe it is a much more responsive and instantaneous method of replenishing our stocks today. If we chose another method, that is just simply buying refined product as a very small customer, it would probably be extremely more difficult and it would take us a lot more time.

I think the method that we have today is a much more sensible method and the facts are showing already that we are able to add to our stocks fuel obtained by our NPR arrangements.

Senator HUMPHREY. Reading from the article further:

One argument made by Armed Services for shutting in Elk Hills was that a west coast supply of crude oil was needed in case of a national emergency. Although there are over 200 million barrels of oil in the strategic petroleum reserve located on the U.S. Gulf Coast, that oil can only get to the west coast by ship through the Panama Canal.

Would you comment on that.

Mr. WEBSTER. Well, the NPR of course is closer to the west coast, but it is crude and it does have to be converted into refined product. I believe in the case of a national emergency we would probably be able to muster the resources to move the crude stocks where we needed them for refining purposes. I think it is where the location of the refined product is which is the important thing at the outset of an emergency.

Senator HUMPHREY. Senator Levin.

Senator LEVIN. Why are we buying petroleum to fill the strategic reserve while we are selling petroleum out of our naval reserve?

Mr. WEBSTER. Why are we buying petroleum to fill the strategic petroleum reserve?

Senator LEVIN. When we are selling oil out of our naval reserve.

Mr. WEBSTER. Well, the purpose for the sale of the oil out of the naval petroleum reserve is to trade it off to get refined product.

Senator LEVIN. Why don't you trade off the oil that we are pumping into the strategic reserve?

Mr. WEBSTER. That is not within our limit of authority to use the strategic petroleum reserve, if that is what you are asking.

Senator LEVIN. I am not suggesting using it. I am saying why don't we take the oil that we are pumping into the strategic reserve and trade that for whatever requirements for "refined product" you have instead of pumping oil out of the naval reserve for that purpose?

Mr. WEBSTER. Again, unless I misunderstand the question, we only have the authority to use the naval petroleum reserves today. Could we use it as another alternative?

Senator LEVIN. I am not talking about your authority. I am talking about the Government. This Government is paying good money to buy petroleum to pump into its strategic reserve and at the same time we are paying additional money as the cost to pump petroleum out of the naval reserve. Why don't we just take the petroleum that we are buying for the strategic reserve and trade that for your easy purchase rather than pumping oil out of our naval reserve?

Mr. WEBSTER. Well, you could do this. Of course, there is an advantage of taking the crude out of the NPR, the naval petroleum reserve, in that it keeps those lines open and makes them a lot more easily obtainable even in a contingency situation. If you close down the NPR you will still have an extreme maintenance cost to maintain the site and maintain the facilities Then you will have a startup cost and delay time and then you will perhaps run some degree of lower efficiency in the pump-out rate.

Senator LEVIN. How much did we average a barrel in receipts for the naval petroleum reserve this year?

Mr. SHARKEY. The production has peaked at about 180,000 barrels a day.

Senator LEVIN. How much do you receive per barrel in dollars?

Admiral RYAN. For the sale of the crude?

Senator LEVIN. Yes.

Admiral RYAN. If you will hang on for a second, I do have those figures. It is roughly $31 and perhaps a shade more.

Senator LEVIN. That is the average for 1981?

Admiral RYAN. Yes.

Senator LEVIN. What do we pay, do you know, for petroleum on the average to fill our strategic reserve?

Admiral RYAN. The oil used to fill the strategic petroleum reserve, Senator, comes from a variety of sources. Most of it right now is being bought on the spot market. Some of it comes in the country-to-country agreement recently made with Mexico. There is a wide variety of prices being paid because their slate for that particular reserve involves both heavy and light crudes as well as sweet and sour crudes.

Would you like an overall figure?

Senator LEVIN. Well, if you could give me the average figure for the same quality of oil that we are selling out of Elk Hills.

Admiral RYAN. Well, if we use the benchmark crude, which is used overall which is called Arabian light, its official selling price is $34 a barrel. It lays into the gulf area at about a dollar and a half more. So you are talking somewhere around $35.50.

Senator LEVIN. So we are paying $35 a barrel?

Admiral RYAN. Well, one figure I gave you, the $35.50 for Arab light includes transportation. The figures that were quoted that we gave you earlier for the sale of the Elk Hills crude is at location. The difficulty would be then moving the Elk Hills crude down to SPR.

Senator LEVIN. Well, why would we do that? Why don't we just leave it in Elk Hills?

Admiral RYAN. It has to do with the rate at which it can be drawn out of the ground, sir. One of the things about the design and construction of the strategic petroleum reserve, one of the specific objectives, is to be able to draw the crude out of the ground extremely rapidly, 1 million barrels a day now and up to 3 million barrels a day by, I believe, 1985. That kind of capability does not exist at all in the field at Elk Hills nor could it really. So it is how quickly you can get it up.

I think the thing I was trying to point out is the fact that it is difficult to move oil out of the west coast area. Because of the Rocky Mountains, there is very little pipeline flow which goes from Elk Hills or any other area on the west coast across the mountains and into the Gulf or Central or East States.

I believe the fastest rate at which it could be moved would be through the Four Corners Pipeline owner by Arco and I think that is a relatively small line, something like 16,000.

Senator LEVIN. Is that also true with moving the oil from the strategic petroleum reserve to the west coast?

Admiral RYAN. Yes, sir. It goes both ways.

Senator LEVIN. So it is true in both directions.

Admiral RYAN. Yes.

Senator LEVIN. Has OMB taken a position on this matter? I guess this should be addressed to Mr. Webster.

Mr. WEBSTER. We have the President's position. OMB I don't think took a direct part in that decision.

Senator LEVIN. You say it did?

Mr. WEBSTER. It did not.

Senator LEVIN. You don't know whether the OMB is encouraging the sale—to continue the the sale or not?

Mr. SHARKEY. Revenues from the sale of the NPR crude were an element in that decision.

Senator LEVIN. That was about a billion dollars a year, correct?

Mr. SHARKEY. About a billion seven, somewhere in that range.

Senator LEVIN. Could you give us a rough estimate? In general how close are we to meeting our requirements of storage and prepositioned resources? Are you able to give us a figure? Are we half way there or are we two-thirds of the way there?

Admiral RYAN. I can give you a fairly precise figure in the sense that we are roughly [deleted] barrels short of the total requirement for prepositioned war reserve stocks.

Senator LEVIN. What percentage is that of the requirement?

Admiral RYAN. That is about [deleted] percent.

Mr. WEBSTER. The total is [deleted]. That is the total requirement.

Senator LEVIN. So we are about [deleted] percent there; is that a fair statement?

Admiral RYAN. Well, actually I think it is a little bit higher than that, sir.

Senator LEVIN. Well, [deleted] percent.

Admiral RYAN. Yes, that is about right.

Now, you asked also about storage. The storage figures are comparable. We are short about [deleted] barrels of storage input the oil as well. In other words, we do not have [deleted] barrels empty storage awaiting the reception of this additional oil.

Senator LEVIN. Is there any leverage that we need these days to obtain finish product?

Mr. WEBSTER. The leverage of the raw stocks is the main leverage.

Senator LEVIN. What kind of leverage do you need in this market?

Admiral RYAN. Obviously, you know, there is plenty of oil out there. As far as leverage is concerned in just buying oil for either peacetime uses or for prepositioned war reserves, there is no particular leverage needed. We have some products that are more difficult to buy than others. For example, I have not yet reached all the coverage I want for Navy jet fuel for the west coast. I am short some of that because it is difficult to make and people aren't all that enthusiastic about making it.

But generally speaking, under these conditions it is possible to buy all the fuel you want to buy.

Senator LEVIN. Shouldn't we be saving our petroleum for times when there are real shortages, real needs, military or otherwise?

Admiral RYAN. I have to look at it from my vantage point when I answer a question like that and I hope you don't mind, Senator. My job is to get not oil but fuel, the proper kinds of fuel in the right places at the right time. Obviously that is best accomplished by hardened storage locations at or immediately adjacent to the place where it is going to be used, the right type and the right quantity.

I can walk that back all the way to the worst kind of situation and that is fuel which is not fuel but in fact crude oil stored in a hole some place. Obviously the more I can get from crude to product and the more I can get from product to the right product and right location the better off I am up to a point.

Senator LEVIN. In the short run?

Admiral RYAN. Sir?

Senator LEVIN. For the present you are better off.

Admiral RYAN. Oh, yes.

Senator LEVIN. In terms of planning for the future aren't we better off saving our petroleum for a time of great need or a crisis or a military emergency?

Admiral RYAN. Well, the purpose in keeping the naval petroleum reserve open is in order to obtain an assured source of supply for future requirements. As we outlined, there is a kind of general program called supply assurance which runs all the way from using long term contracts with U.S. oil firms who have assured sources of crude and have refining capacity, in other words, 5-year contracts, to the use of the naval petroleum reserve as a means of increasing the assurance by establishing long term exchange programs.

When you have a crude oil shortage either occasioned by a political situation or by a war the problem is not product, the problem is crude and of course that is the best time to have crude and it is that kind of situation where the naval petroleum reserve fills the bill.

Senator LEVIN. It won't fill it in the year 2000 at the rate we are going.

Admiral RYAN. Well, yes, it would fill it in the year 2010.

Senator LEVIN. The way I read this, it runs out in about 25 years.

Admiral RYAN. Well, we are only talking about the next 3 years, sir. In other words, the initial opening——

Senator LEVIN. In other words, you are not going to be coming back in three years from now for an extension?

Mr. SHARKEY. That decision will be revisited in 3 years.

Admiral RYAN. We will be looking at an entirely different scenario. For example, by that time I would suspect that we will have 750 million barrels in the strategic petroleum reserve which will pose an entirely different scenario and different situation.

Mr. WEBSTER. And we will have probably made up existing shortfalls in our own prepositioned stocks, too.

Admiral RYAN. I can only speculate on that, but I doubt the same argument could be made 20 years from now.

Senator LEVIN. Could you furnish for the record what it would cost to maintain the naval reserves at the lowest possible level to keep them operating so if we wanted to expand suddenly, in time of emergency or great need, we could do so, in other words, without closing them down altogether. At what level do you have to keep them operating in order to have that surge capability? Could you supply that for the record?

Admiral RYAN. Yes, sir, certainly.

[The information follows:]

COST TO MAINTAIN NPR AT MINIMUM READINESS RATE

Admiral RYAN. Should the Reserves be shut-in, the following budget would be required.

[In millions of dollars]

	Fiscal year—				
	1983	1984	1985	1986	1987
Reserves Nos. 1 and 2 (California)	177.0	175.1	189.1	194.4	199.3
Reserve No. 3 (Wyoming)	7.7	5.6	4.2	4.2	4.2
Headquarters	.1	.1	.1	.1	.1
Program direction	5.4	5.4	5.4	5.4	5.4
Total	190.2	186.2	198.8	204.1	209.0

This table is based on production of approximately 30,000 barrels of oil per day (BOPD) at NPR–1 and 700 BOPD at NPR–3. These production rates will ensure a high state of readiness in order to rapidly return to full production under an emergency situation. It is recognized, of course, that after an initial 18-month period, during which the Government must repay certain oil (20,000 BOPD) to Chevron U.S.A., pursuant to a Unit Plan Contract, production at NPR–1 would fall to about 8,000 BOPD unless the law was amended to allow for additional production during a shut-in situation.

The only reduction in funding at both Reserves would be in the Operations and Maintenance category due to significantly reduced gas plant and other production-related activities.

Development and exploratory drilling would continue as currently planned in order to develop the Reserves to their maximum production capacity and fully exploit all reservoirs. Similarly, a development facilities funding would be required to accommodate facilities adjustments for new pressure maintenance programs, changes in well producing pressures, and other evolving requirements.

Senator HUMPHREY. Dr. Webster, I would like to go into some greater detail on the Pentagon, the means by which you determine your fuel requirements. Would you focus on the NATO situation, for instance, and tell us how you go about planning the fuel requirements for mobilization?

Admiral WATSON. Yes, sir.

Senator HUMPHREY. What are the various considerations that make up your requirements?

Admiral WATSON. In the [deleted].

Although this doesn't, I believe, get directly to your question it may clear up some of the planning that has gone on. The JP–4 is the normal jet fuel used ashore for our fighters and others. During the first 30-day period the Army would require some [deleted] barrels and the Air Force some [deleted] barrels.

I think that probably the chart doesn't get to your question. Your question is what are the considerations here. Well, we have certainly got a better infrastructure. We have got better prepositioned supply points. We have got more [deleted] that are very formidable that could help us. Certainly we are against a more formidable enemy in that scenario. But that entire [deleted] is against a [deleted].

I am not sure exactly what you are after there, sir.

Senator HUMPHREY. You mentioned that we can count on our allies in the area of fuel, if I understand you correctly, but do they have excess storage war reserves and a daily operational requirement in storage?

Admiral WATSON. [Deleted] sir.

Senator HUMPHREY. Aren't they in pretty much the same shape as we are that they have got a lot of nice things on paper but it isn't there in actuality?

Admiral WATSON. Well, not quite to the extent, sir, that you put it down and say it is not effective. We have had, of course, over the many years of the NATO Alliance, all sorts of agreements. Now I would say our biggest advantage [deleted]. We have many bases throughout the area.

Are we in good shape in [deleted] as far as fuel is concerned? I think, yes, sir, we are.

Senator HUMPHREY. How about our allies?

Admiral WATSON. I can't answer definitively, but to the best of my knowledge, Senator, and maybe one of the others could pick this up and be more definitive, but I think they are *in good* shape.

Senator HUMPHREY. Let's take the first [deleted] days. Are you factoring in substantial damage to storage and transportation facilities?

Admiral WATSON. Yes, sir. Part of the [deleted].

Senator HUMPHREY. Let's continue to focus on the first [deleted] days. How do you go about coming up with these numbers? You know you have *x* numbers of tanks and aircraft that use *x* number of gallons per day at a certain level of intensity. What else is factored in there?

Admiral WATSON. Well, also factored in there of course is that those forces [deleted] that we would be putting in in the first [deleted] and more beyond that are not there at day zero. So we have tried to be very careful that we don't [deleted]. We try to work it against when [deleted].

Excuse me, Senator. Are you familiar with the time phased force deployment list? What we have done is the Joint Deployment Agency is supporting our different commanders and chiefs as they work up their plans. The [deleted].

In the course of building a [deleted].

Senator HUMPHREY. What are the numbers for our European forces?

Colonel CRUMP. Sir, those are some selected numbers. Our requirement for NATO, sir, is the [deleted] barrels that you see under the USEUCOM column on this chart. Against that requirement, sir, you see that we have approximately [deleted] barrels. So we have roughly got about a [deleted] barrel shortfall.

Senator HUMPHREY. This is for the first [deleted] days?

Colonel CRUMP. No; that is for the total. That is not for the first [deleted] days. So in essence this [deleted] barrels, or a little greater, we have already prepositioned as inviolate levels. [Deleted.]

Senator HUMPHREY. The war reserve stocks are predicated on what length of combat?

Colonel CRUMP. In this case the [deleted] barrels we estimate would last us approximately [deleted] days. If you are in Central Europe, we would like to have [deleted] days. In the United Kingdom we would like to have [deleted] days.

Admiral WATSON. Now, sir, what would happen, let's say that we had today a problem that would provoke our Government to decide to execute this plan and move all those troops and everything over to [deleted].

From our planning we know that our [deleted] days supply and therefore I have got to find other sources of getting that supply in there principally [deleted]. Of course, you know, some of the places that are available to us are the worldwide resources that we have.

Of course, in today's environment we are more concerned that we won't have a [deleted]. It will probably be a [deleted] of a situation.

Senator HUMPHREY. We are not likely to have free passage of the seas, are we, in this scenario?

Admiral WATSON. Yes, sir. Every one of the [deleted].

As a for instance, [deleted].

Senator HUMPHREY. How did we end up being [deleted] in every geographical command area? [Deleted.]

Admiral RYAN. Well, first of all, the requirement for fuel in any one of these areas, as we mentioned earlier, Senator, is computed and recomputed about every 6 months. That is based on the latest weapons, the latest assessment of the threat and all of the other factors that go into deciding how much fuel you need. So this is basically a moving target we are shooting at.

I would point out, for example, we are shooting at a target this year, calendar 1981, which was basically [deleted] higher than last year. So it is a moving target. That is No. 1.

No. 2, you have the fundamental constraints in budget really which go against that. We had programed, for example, to eliminate the total worldwide shortage of fuel of [deleted] barrels. We have predicated to eradicate that thing by [deleted].

We have increased the amount of fuel we have in any one of these theaters substantially in the last 2 or 3 years. If you would like, I would be very happy to give you the figures by which we have increased year by year.

The answer to your question is, one, we are shooting at a moving target. Second, you have the basic budget constraints which apply from year to year.

Senator HUMPHREY. We are shooting at a moving target and [deleted] at present. Have we [deleted] in recent years, or is this [deleted].

Admiral RYAN. Well, if I might, I would say that between 1979 and 1980 we have added 19 percent to our stocks. Between 1980 and 1981 we added another 15 percent. So these are figures which are increasing substantially. To put them into hard barrels, the number of million barrels, we went in 1979 from 57.1 actually on hand up to 67.8 in 1980, and now 78.8 in 1981 and we are all the way up to about 84 or 85 actually.

Senator HUMPHREY. During that time, our requirement for fuel has also increased, hasn't it?

Admiral RYAN. Yes, sir.

Senator HUMPHREY. Are we closing the gap or is it just moving?

Admiral RYAN. Generally speaking we are closing the gap. In any one of those 3 years the requirement may increase more than what was laid in, but overall during the period we have closed the gap, yes, sir, and we plan on closing the gap entirely by 1987.

Admiral WATSON. Senator, if I might add to that a little bit. The [deleted] is not the only concept we want to work on. We would like to look at the logistics as sort of a triad I guess. You can either ship it by air or by sea or you can put it there ahead of time and have it sit there.

One of the disadvantages of having it pre-positioned someplace is then you are tied to a war that you don't know where it will start and how it will be run to where you happen to put this fuel. If you have got it so it can be moved anyplace in some ways you are more flexible.

I think from a JCS perspective we don't share quite the concern I think you are expressing, that we are not doing well. I think we are doing reasonably well with the pre-positioned war reserve stocks.

Senator HUMPHREY. There is obviously some logic for having pre-positioned stocks whether it is fuel or ammunition. If you don't have what you should have and if you cannot reach these targets, then you are counting on getting material there in a hurry from some other place. We don't have an awful lot of transport for much beyond people and weapons for the first weeks of any kind of mobilization.

Admiral RYAN. That is right. I think the fact remains, Senator, that in the last 3 years we have increased the pre-positioned war reserve stocks actually on hand by almost [deleted] percent. That is a substantial jump.

Senator HUMPHREY. Referring again to the NATO scenario, what assumptions do you make about the availability of crude oil from the Persian Gulf, the North Sea, and from Alaska?

Admiral WATSON. As far as meeting our own U.S. needs, [deleted].

Senator HUMPHREY. What I am trying to get at here is, in your calculations are you assuming that over a sustained period of time, crude would still be available to us, to domestic refiners, to keep fuel refined product in the pipeline?

Admiral WATSON. Let me look at it from the military protecting the sealines of communication point of view. [Deleted] of the [deleted] that we have made for [deleted].

Senator HUMPHREY. Not if the Cubans can help it.

We are using about 15 million barrels a day in this country and we produce about eight. In the event of conflict, when transportation and the sealines are challenged, what assumptions are you making about continuing to receive enough crude so that we can keep the pipelines full several weeks or months into a conflict?

Admiral WATSON. In the Continental United States?

Senator HUMPHREY. For our whole effort, not just civilian use, but military use.

Admiral WATSON. Yes, sir. We are making the assumption that [deleted].

Senator HUMPHREY. You are assuming that the Navy can keep open the lines of communication between the area of the North Sea and the United States and between the Persian Gulf area and the United States? You are assuming the Navy can do that?

Admiral WATSON. Yes, sir. Now when you say the [deleted] to support that.

That plan, if we just execute that one, does not call for maintaining the [deleted]. Obviously, it would be in our best interests to do that if we possibly can. But the plan as it is now structured does not call for that.

Senator HUMPHREY. I think it was the commander of the Pacific Fleet, that said he is [deleted]. Yet you feel confident that you can [deleted].

Admiral WATSON. Well, Senator, you have really got me over a barrel here. I don't feel that [deleted]. What I am trying to say is that we recognize that we need to maintain those secure lines of communication or [deleted] any operations around the world.

I am trying to state what we recognize as a need and we do have plans to do that. Now the subjective judgment on [deleted]. Certainly he is in a better position to judge that.

Senator HUMPHREY. I am just trying to make a point that we are asking an awful lot to make up for these [deleted]. We would be a lot better off to have them full at the outset.

Admiral WATSON. Yes, sir, I agree.

Senator HUMPHREY. Dr. Webster, I wonder if you can have your staff provide for the record a chart showing the pre-positioned war reserve requirements for the last 10 years and how close we have come to fulfilling those.

Mr. WEBSTER. All right.

Admiral RYAN. Senator, is that the requirement year by year as well as the on-hand stock year by year?

Senator HUMPHREY. Yes.

Mr. WEBSTER. All right.

[The information follows:]

PRE-POSITIONED WAR RESERVE REQUIREMENTS FOR POL

Dr. WEBSTER. The Defense Logistics Agency became the Integrated Material Manager for petroleum products in 1973. Consolidated DoD bulk petroleum war reserve requirements and stock history data are available from 1974 forward. The following information is from Defense Fuel Supply Center (DFSC) Inventory Management Plans (IMP) starting with the initial publication for FY 74, and including current FY data. The plan provides wholesale figures as well as retail information submitted by the Services. The final line represents current funded inventory objective. Information is provided in the following format by columns:

(1) Fiscal Year—To include transition (FY 7T) for 1 July to 1 October beginning date.

(2) Total (DoD) War Reserve Requirement—Composite requirement from all the Services.

(3) War Reserves Stocks Held by Services—Quantity the Services have indicated they can protect.

(4) DFSC War Reserve Requirement—Difference between total requirement and quantity Services can protect. This difference is what the Services ask DFSC to protect.

(5) War Reserve Stocks Held by DFSC—Funded amount of wholesale requirement.

(6) Uncovered War Reserve Requirement for DFSC—Unfunded Wholesale Requirement.

DOD PETROLEUM PREPOSITIONED WAR RESERVE STOCKS WORLDWIDE [DELETE] [1]

	Total war reserve requirement	War reserve stocks held by services	DFSC war reserve requirement	War reserve stocks held by DFSC	War reserve requirement for DFSC uncovered
(1)	(2)	(3)	(4)	(5)	(6)
Fiscal year:					
1974					
1975					
1976					
1977					
1978			[Deleted]		
1979					
1980					
1981					
1982					

[1] All information deleted.

Source: Inventory management plan (IMP) data.

Senator HUMPHREY. Why do you feel confident that we are going to buy our way out of this shortage by [deleted].

Mr. WEBSTER. Our performance over the last 3 years has been improving. Even though we know that the requirement has been rising during this time we have been able to fill our storage requirements faster than that. So I think if we continue with the program that is ongoing we will successfully complete it by [deleted].

Senator HUMPHREY. Did you get all of the funds for that purpose in 1982 that you requested?

Mr. SHARKEY. I believe the answer is essentially yes. There was some repricing in the budget process because prices didn't escalate quite as fast as we had anticipated when we put the budget together, but I believe the volume is intact.

Admiral RYAN. I think the whole attitude toward fuel in terms of programing fuel requirements in terms of budgeting for the program for the outyears has changed. The actual ongoing program approved for the Department of Defense schedules the total elimination of that deficit by [deleted].

Now whether or not Congress sees fit to appropriate sufficient money to do that, and as Mr. Sharkey pointed out, whether or not the worldwide price of oil changes so substantially that it might impact this, of course, we can only speculate about. But the intent is there and the actual program is there.

Senator HUMPHREY. What was this [deleted] target designated?

Admiral RYAN. It would have been I believe POM 1981.

Mr. SHARKEY. This current year. That is our current 5-year program.

Senator HUMPHREY. What was the target date under the previous 5-year program?

Mr. Sharkey. [Deleted].

Senator HUMPHREY. What about the problem of storage? Even if you had the fuel, you obviously don't have the place to store it. What are you going to do about that?

Admiral RYAN. Let me take it back a year and kind of kick off on this idea about how well we are moving. We increased, if I recall correctly, the number of storage locations for pre-positioned war reserve stock in Europe, for example, from the number of [deleted] to the number of [deleted] last year. Storage was obtained through either host government relationships, country-to-country agreements in some cases, such as we have with European nations and even through commercial sources.

As soon as we know that we have a requirement for fuel in a given area and that we have the program to buy that fuel then we immediately start searching for storage. So far we have been rather successful in finding storage. There are some areas such as Central Europe where storage is not often available or always available in the precise location we would like to have. Sometimes we compromise a bit and take storage which is not precisely where we would like it to be but it is, in other words, close enough.

I have not seen a situation yet where I believe we will not be able to obtain the required amount of storage in the given location as the amount of fuel rises, as the prepositioned war reserve stock rises, with the possible exception of Southwest Asia because of the unique characteristics there, particularly the long distances.

Senator HUMPHREY. So you don't see storage as a problem.

Admiral RYAN. Right now I have enough storage and I suspect I will be able to find the right storage if I have the money to do it.

Senator HUMPHREY. If the fuel is available, you will be able to find the storage for it; is that what you are saying?

Admiral RYAN. Yes, sir, with the one caveat I mentioned earlier. I think it is going to be a little more difficult to find it in Southwest Asia. We are looking for example at Sri Lanka as a potential source. I might also point out though that the distances out there are extremely long and it is not as easy to position fuel in the right location in Southwest Asia as it is, for example, in Europe.

Senator HUMPHREY. Describe a typical storage facility in Europe.

Admiral RYAN. Most of the storage that we have in Europe, if I might, is so-called cut and cover construction. You get a bulldozer and you move part of the hillside away and you build the storage area and you put the dirt back on top of it. That is the kind of storage which most of the fuel is in, in Europe.

Senator HUMPHREY. Going back to this program to eliminate the reserve deficit by [deleted] will you provide for the record a funding profile showing expenditures year by year?

Admiral RYAN. I would be very happy to. Do you want that historical or just looking forward?

Senator HUMPHREY. Encompassing the last years as well.

Admiral RYAN. Five years and then [deleted.]

Senator HUMPHREY. Yes, and looking forward through the target date.

Admiral RYAN. Yes.

[The information follows:]

WAR RESERVE FUNDING PROFILE

Admiral RYAN. The information follows:

FUNDING REQUIREMENTS TO REDUCE WAR RESERVE DEFICIT TO ZERO

Fiscal year	Increase in storage (millions of barrels)	Funding requirements (millions of dollars)
[Delete]		

Senator HUMPHREY. I want to go back again to this matter of domestic uses of fuel. As I stated, we consume about 15 million barrels per day in this country. If we lose a significant part of our 6 or 7 million barrels per day of imports, the civilian economy is going to be in trouble.

There obviously will be a lot of competition from the civilian sector for crude. Do you factor that into your planning?

Mr. WEBSTER. Well, first of all, we are cognizant of the total domestic supply problem and we are well aware of the past problems that we have had in securing fuel during the fuel crisis.

There is an ongoing inventory in America today of finished product to satisfy basically the domestic requirement which is a lot larger than ours, but it won't last very long and there are thresholds that have been set on that inventory. Once you go below that threshold the American public is going to get very emotional about wanting a fuel supply.

I think the latest figures show that we are probably about 20 percent above that threshold today. If the domestic supply stays that way, we shouldn't have any great problem in procuring fuel. But if the total gross inventory starts to drop, it won't be more than about a month or two, I think, that we will then have a serious problem.

Senator HUMPHREY. The 480,000-barrel-per-day figure you cited, is that all inclusive, including fuel to run bases?

Mr. SHARKEY. Yes, sir, that is all petroleum fuels.

Mr. WEBSTER. As I said earlier, we are very hazy about what the industrial base would require. We really don't have our hands on that and we have got to spend some more time looking at that area.

Senator HUMPHREY. In your statement, Mr. Webster, you made the point that peacetime procurement is through competitive negotiation. What do you mean by that?

Mr. WEBSTER. On the open market. We deal just on the open competitive market to get our supplies.

Admiral RYAN. We issue solicitations to a number of firms telling them what our requirements are and the terms under which we want the product and then you normally have a fair amount of competition for each of the products you require and you sit down like you see your initial bid and go over the terms of the circumstances, the terms of their pricing with each of them that are in the competitive range, and then when you are all through doing that you simply ask for their best and final offer and you award to the low bidder.

Senator HUMPHREY. At the last hearing, you said that you wanted access to Elk Hill's crude to give you better guarantees of fuel deliveries in times of tight fuel supply. Why can't that be done through contract language?

Mr. WEBSTER. Well, again, we are a small percentage of the total marketplace and using Elk Hills just gives us a favorable position that we can provide the crude to the suppliers that we are dealing with. It is a much better arrangement for us.

Admiral RYAN. The characteristic has been when you have crude shortages that the small refiners particularly immediately go into a forced situation where they can no longer produce because they simply cannot get the crude. The surest way to obtain product in times of crude shortages is to have crude without their loss.

Senator HUMPHREY. What have you learned from previous periods of crude shortage embargoes and what have you done in response to those lessons?

Mr. WEBSTER. Well, first of all, it has caused the Department of Defense to go to extraordinary management measures, as I pointed out earlier. In one case we had to actually use the Office of the Secretary to put direct leverage on the major oil suppliers. This causes us a lot of time delay and causes a lot of other administrative problems.

Senator HUMPHREY. What steps have you taken to improve the situation in the event of another shortage?

Mr. SHARKEY. Basically what we have done since then, in addition to building up our stocks along the lines that Admiral Ryan mentioned, is to develop what we call a four-point supply assurance program, the cornerstone of which is the exchange of secure domestic government controlled crude oil for products as leverage in a tight market.

The second element of that is to obtain access to synthetic fuels that will come into production as this decade goes along. We have a right of first refusal on any synthetic fuels produced under guarantee arrangements of any sort of the U.S. Synthetic Fuels Corporation.

Already we have guarantees of 20,000 barrels a day of shale oil beginning at 10,000 in 1983 and another 10,000 in 1985. That guarantee will be for a 10-year period. We see that as a growing component of our supply assurance as the synthetic fuels industry gets larger.

The third element of our supply assurance program is to simplify our contracting procedures and policies so that in a tight market we can be more responsive in how we do business to the market conditions so that we compete there with other buyers in the marketplace.

Finally, we are working to try to improve our ability as a last resort to intervene in the market in a regulatory way to obtain priority allocation products.

Senator HUMPHREY. Admiral Ryan, how far down do your responsibilities go in distribution?

Admiral RYAN. The term "wholesale" is used and I will explain it, Senator. The FSC controls the product at the wholesale level whereas the services control it at the retail level. Retail level usually means the fence at the perimeter of the base. For example, on an Air Force base those particular tanks that store jet fuel on the Air Force base are considered retail level supplies maintained, held and controlled by the service.

Beyond the fence at all the fuel distribution points and at all the wholesale points, and while the fuel is being moved on the high seas, for example, and when it is first acquired, that is all part of the wholesale stock. The ratio is about 80/20, 80 wholesale and 20 retail.

Senator HUMPHREY. In Europe, at the wholesale level, is there a significant amount of transportation by tank or truck?

Admiral RYAN. Most of the transportation in the European Theater, Senator, is by pipeline. Usually the central European pipeline system and to feed that, the pipeline that runs from Donges in Brittany to Metz near the German border where it connects with the central European pipeline system.

There are spurs from the central European pipeline system to move the fuel further forward in some of the locations and then beyond those spurs you rely on truck.

Now without getting into specific provinces or things, I think that is probably a fairly accurate description.

Senator HUMPHREY. What is the situation regarding the trucks? Do you have enough?

Admiral RYAN. At that level, Senator, the fuel no longer belongs to me. Once it leaves the central European pipeline system it is no longer wholesale stock. I don't actually have that information.

That would be the European Command and then the Army as the adjunct to them.

Mr. WEBSTER. I think there also would be the need probably to use the rails network in Europe in addition to the trucking network. There would be a distribution problem then between wholesale and let's say a division who as an active force has its own ability to supply itself. There is that area between the pipeline and where that division is located where we would have to use European rail or European trucking.

Senator HUMPHREY. Admiral Watson, did you want to add to that?

Admiral WATSON. Let me ask Colonel Crump who is more familiar with the distribution.

Colonel CRUMP. Sir, the problems in Europe that we have are a shortage of bulk POL storage, and wholesale and retail distribution problems. We also have a shorage of POL trucks. I do not have the specifics. The Army has the responsibility to provide overland petroleum supply to U.S. land-based forces of all DOD components. I know that they have a POL truck shortage and they are working on that problem. If you would like, we could get that information and supply if for the record from the Army on exactly how many trucks they are short and what they are doing about it.

Senator HUMPHREY. Dr. Webster, will you tell us about the European situation with regard to ammunition supplies?

Mr. WEBSTER. I am afraid I can't.

Senator HUMPHREY. We didn't ask you to prepare for that, but what I am getting at here is, what is our supply in days of emergency war reserves and fuel?

Mr. Sharkey. The number was [deleted] days of supply from the chart.

Senator HUMPHREY. What point is there in having [deleted] days for fuel when your ammunition supplies, depending upon the category, are [deleted]. Can you comment on that?

Mr. WEBSTER. I think I can make some comments about that. I think the number of days supply that you would need would vary differently. For example, our combat people do carry some ammunition with them when they come. That would affect it to some degree, whereas, with fuel, you really need it all pre-positioned there. As a matter of fact, even in the area of storage of some of our equipment, we, the United States, do not store equipment with fuel in it. So I think that you would have slightly different measures there depending on how the people would be deployed and the equipment. There would be differences.

Senator HUMPHREY. Is there someone in Defense who looks at the correlation between these numbers?

Mr. WEBSTER. The total force requirements coming out of the Joint Chiefs would come down to the materiel requirements to back them up. So the answer is yes. All the materiel requirements in terms of weap-

ons as well as food, as well as ammunition and fuel, would have to be coordinated with the total force deployment. So, yes, you can get that kind of a picture.

Senator HUMPHREY. Encompassing all of your responsibilities, what are the most worrisome areas for you in terms of materiel?

Mr. WEBSTER. Well, in the area of the finished product fuel problem, I think from where I sit, I think the distribution problem is the [deleted] one; that is, the possible lack of enough [deleted] for clean fuel. That one could be an [deleted].

If you go into the [deleted] environment, you again remember that we have a big [deleted] today and we are relying primarily on those [deleted] out there in the [deleted] and that carries a lot of risk with it.

In the other areas of materiel, that is supply-type materiel, I think we are probably in fairly good shape. We are pre-positioning equipments and we are pre-positioning spare parts. We are monitoring that equipment. In the European theater, which I just happened to visit one base 2 weeks ago, the equipment looked like it was in very good shape.

Now, they do draw every item out periodically to give a check on it. I happened to see some trucks and tanks being exercised in the long-term storage environment.

In the area of Southwest Asia, the equipments that we are pre-positioning on the other ships—and there are a total of eight there—those are periodically withdrawn from the area, and that is a learning process, too. We are trying to assess just how much environmental kind of damage you will get with those weapons on the pre-positioned ships, but we are pulling them back and evaluating those.

Senator HUMPHREY. You haven't listed ammunition stocks as one of your principal concerns. Are you concerned about this?

Mr. WEBSTER. In terms of total supply of ammunition, that is a [deleted] the conventional ammunition which is what I think you are talking about. I think the pre-positioned stocks that we have today are [deleted]. We did have and probably still do have to worry a little bit about [deleted]. We are currently working on those problems and will probably have some pretty solutions.

Senator HUMPHREY. Aren't we critically short on air-to-air missiles?

Mr. WEBSTER. I am not personally aware of the details, but I have seen the published reports from the services saying [deleted].

Admiral WATSON. Sir, I am not prepared to give you numbers because I didn't know we would discuss that——

Senator HUMPHREY. We didn't really intend to get into this, but we shall at a future hearing.

Admiral WATSON. Yes, sir. To answer your question on ammunition, we do have some shortages. One of the worst of the shortages is in the [deleted].

What we plan to do [deleted] to where they meet all of our requirements is if we execute one of the operations plans then [deleted] or the defense of [deleted] plan or one of the others to send them to the CINC who is actually being shot at until we can get the mobilization up to the point to fill those stockages in.

My understanding of the [deleted].

There are some other shortages in ammunition supplies and we watch those very closely because right next to fuel, that is something that requires a great deal of lift to get over there. It is heavy, bulky stuff by and large and we do have some [deleted] round shortages sprinkled about. But I would say the single biggest ammunition shortage we have is [deleted] weapons at this time.

Senator HUMPHREY. We may go into that in a future session.

Gentlemen thank you.

[Questions with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

WAR RESERVE FUEL OBJECTIVES

Senator LEVIN. Do we currently have the JCS objective for fuel supplies on [deleted]-day supply for the U.S.; [deleted]-day supply for the U.K.; and [deleted]-day supply for Central Europe. Are those objectives based on a peacetime operating tempo or a higher-than-peacetime operating tempo?

ANSWER. These objectives are based on a [deleted].

Senator LEVIN. Do we currently have the JCS objective for fuel supplies on hand in each of the above areas? If not, what are the current supplies on hand, and when will we reach the JCS objective?

ANSWER. This chart shows the war reserve requirements (objectives) and what we have stocked against those requirements. We are currently programmed to reach the JCS objectives in FY [deleted].

FUEL REQUIREMENTS [1]

[Quantities in barrels]

	PWRMR requirements	PWRMRP requirements	DOS [2]	Shortfall
Conus and Alaska		[Deleted]		
Pacific				
Useucom				
Lantcom				
Southcom				

[1] All information deleted.

[2] These figures represent the weighted average days of supply prepositioned war reserve stocks for all product in these geographic areas. [Deleted.]

Note: The actual requirement is called preposition war reserve materiel requirement (PWRMR). The actual on-hand POL stocks against the requirement (PWRMR) is called preposition war reserve materiel requirement, protectable (PWRMRP).

Senator LEVIN. Given the DOD fuel supplies on hand today, how long could DOD sustain a mobilization tempo of operations without disruptions due to insufficient fuel supplies?

ANSWER. If we had a [deleted] our best guess would be that within [deleted] days our current prepositioned war reserve stocks would be depleted.

PROGRAM TO OVERCOME WAR RESERVE SHORTAGE

Senator LEVIN. DoD estimates that our Prepositioned War Reserve fuel stocks are currently [deleted] percent below the stated requirement of [deleted] barrels. Does the current five year defense plan eliminate this shortage by [deleted]. For the record, please indicate the buy-out schedule for this shortfall under current plans.

Dr. WEBSTER. [Deleted.]

Senator LEVIN. Where are the shortages in our Prepositioned War Reserve stocks? For example, are the stocks in Europe maintained at 100 percent of requirement, while those in the U.S. closer to commercial supplies held below requirements?

ANSWER. This chart shows our shortages/shortfall:

FUEL REQUIREMENTS [1]

[Quantities in barrels]

	PWRMR requirements	PWRMRP requirements	DOS [2]	Shortfall
Conus and Alaska	[Deleted]			
Pacific				
Useucom				
Lantcom				
Southcom				

[1] All information deleted.
[2] [Deleted.]

Note: The actual requirement is called preposition war reserve materiel requirement (PWRMR). The actual on-hand POL stocks against the requirement (PWRMR) is called preposition war reserve materiel requirement protectable (PWRMRP).

FUEL TRANSPORTATION AND OVERSEAS STORAGE CAPABILITIES

Senator LEVIN. Moving from a peacetime consumption mode of 480,000 barrels per day (300,000 in CONUS; 180,000 overseas) to a wartime consumption for [deleted]; would require significant increases in fuel transportation and storage capabilities, especially overseas. Do we currently have this capability overseas?

Dr. WEBSTER. Addressing first the storage issue, we do not currently have the storage capacity overseas to accommodate our total prepositioned war reserve requirement. That storage shortfall is basically [deleted]. Our plans are to overcome both the storage shortfall and the product shortfall by [deleted].

It should be noted, however, that a shortfall of storage for war reserve stocks does not necessarily equate to a deficit in operating storage during a conflict. As the tempo of operations increases, and fuel consumption escalates, the existing storage tanks at the ports, wholesale terminals, air bases, and forward operating areas experience a more rapid inventory turnover. For the most part, existing overseas fuel facilities are capable of significantly increased daily throughput. Nonetheless, we will welcome the expanded capability and added flexibility that will derive from the increased war reserve storage available by [deleted].

As regards transportation, we recognize a shortfall in tanker capability for non-mobiliztaion and mobilization scenarios. The following chart depicts the lift requirement versus the U.S. and Effective U.S. Control (EUSC) capability in a full mobilization scenario, and reflects current DoD planning guidance and assumptions:

Days (reqt.) *Tankers (capability)*

[Deleted.]

Programs are underway to help [deleted] by the development of additional lift assets in contingency situations.

PLANS TO MEET DEFENSE CONTRACTOR FUEL NEEDS

Senator LEVIN. The [deleted] per day in CONUS for wartime consumption presumably excludes the needs for defense industry. What type of plans exist to estimate the fuel requirements of defense industry in the event of mobilization and to ensure that these needs are met?

Dr. WEBSTER. We have estimated the petroleum fuel requirements for the direct defense industrial base in a full mobilization scenario to be approximately [deleted] per day. This estimate is derived from information previously obtained from the Federal Emergency Management Agency. The industrial base considered here consists of primary defense contractors, as well as second and third tier subcontractors who provide goods and services to both the military and civilian sectors. This estimate, while certainly less precise than our estimates of direct defense wartime requirements, is considered reasonable.

There are formal DoD procedures established whereby defense contractors contact appropriate DoD agencies to report actual or anticipated energy shortages that could effect support to DoD in contingency situations. We are currently concluding negotiations with the Department of Energy to establish procedures for using the Defense Production Act to obtain priority allocation of fuel for defense contractors and commercial carriers operating in direct support of DoD contingency plans. In addition, at our request the Industrial College of the Armed Forces is conducting a study on total mobilization fuel requirements and supplies.

DEFENSE PRODUCTION ACT FOR DOD FUEL REQUIREMENTS

Senator LEVIN. One of DoD's principal justifications for continued production of the Naval Petroleum Reserve is that DoD will use the crude oil produced at Elk Hills to enhance your leverage with refiners to ensure that they continue to supply DoD with refined fuel products during fuel shortages. Doesn't the Defense Production Act ensure DoD access to commercial fuel products during a shortage or emergency?

Dr. WEBSTER. We consider the Defense Production Act (DPA) a vehicle for use only when all other efforts to satisfy DoD fuel requirements have failed. Our supply assurance program for petroleum fuels is designed ultimately to provide a substantial percentage of DoD's fuel requirements using the leverage of assured crude oil from government-owned or controlled sources. Our studies have convinced us that extraordinary measures like invocation of the DPA would be extremely unsavory, both socially and politically. Thus, they should be employed only in extreme circumstances; any attempt to invoke the DPA for military fuel requirements in a non-mobilization situation would undoubtedly meet strong social and political resistance. We consider our arrangements for access to Naval Petroleum Reserve crude, and similar arrangements for Outer Continental Shelf royalty crude oil, as much more responsive to our needs and considerably less controversial.

These arguments notwithstanding, we do include as the fourth element of our 4-point supply assurance program the perfecting of a regulatory framework (including the DPA) to permit, as a last resort, the priority allocation of fuels to the military and to DoD contractors.

DOD NEED FOR NPR CRUDE OIL

Senator LEVIN. Why does DoD need the added leverage of the Naval Petroleum Reserve crude oil to ensure an uninterrupted supply from domestic refiners?

Dr. WEBSTER. In today's "soft" petroleum markets, DoD does not absolutely require the leverage of NPR crude oil. We can currently buy what we need in the marketplace with no significant problem. However, experience in 1973–74 and again in 1979–80 graphically demonstrated the unfortunate vagaries of the world petroleum market. When worldwide crude oil shortages exist, DoD is among the first to feel the pinch. Many of our suppliers are small refiners whose crude oil streams begin to dry up as world supplies tighten. The result for us is a drawdown in strategic inventories and, ultimately, a curtailment of readiness and training activities.

During future supply shortages, our access to crude oil from sources such as the NPRs will partially insulate us from marketplace problems. Because our residual marketplace demands will be small, our ability to buy what we need, without the need for regulatory intervention, will be enhanced.

Senator HUMPHREY. The hearing is recessed.

[Whereupon, at 11.55 a.m., the subcommittee adjourned, subject to the call of the Chair.]

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